Morris Thin Logging Feasibility Report

North Fork Siuslaw Watershed
Central Coast Ranger District
Siuslaw National Forest

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April 16, 2012

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Summary

Morris Thin is comprised of 11 units. Current trees per acre range between about 180 and 300 (TPA); based on stand-exam data. After thinning the units will have areas consisting of 50 to 75 TPA. Stand exam information was used for estimated volumes. The total sale acreage is estimated at 392; total volume is estimated at 5,300 MBF or 10,192 CCF. The project area is located in Sec. 7, 8, 17, 18, 20, 29, 31, 32, 33, T. 17 S., R. 11 W. and Sec. 6, T. 18 S., R. 11 W.; Lane County, Oregon.

Douglas-fir is the dominant species in all the units. As much as is feasible, hardwoods will not be felled in the units. No Pacific yew was observed during stand exams and logging systems analyses; if any Pacific yew is found during operations, none will be felled. Minimum DBH for trees to be harvested is 7 inches. Trees less than 7 inches will be protected where practical.

GIS was used to calculate the length for most roads and the acres for the units. A string box was used to determine the length for temporary roads (see Table 1.).

System roads 5842, 5842777, 5842784, 5842820, 5842821, and 5842822 will generally require roadside brushing, grading, and additional rock. In addition to the maintenance listed above system road 5842820 will also require road clearing.

Table 1. Estimated quantities for landings, tailtrees, intermediate supports and deadman anchors

*G = guyline anchor; T = tailhold anchor (cat tractor on existing landing is recommended)

Unit	Temporary Road Reopening (Feet)	New Temporary Road Building (Feet)	Number of Landings	Number of Tailtrees	Number of Intermediate Supports	Number of Special Anchors (G/T)*
1	2,447	0	9	30		none
2	295	0	8	25	10	D 2, G
3	615	0	6	24	0	none
4	0	345	7	18	0	none
5	210	0	5	12	5	Eq 1, G
6	810	0	8	10	4	none
7	4,635	145	15	10	7	none
8	0	0	7	13	2	none
9	0	0	4	7	-0	none
10	457	0	3	7	3	none
11	. 80	0	7	10	3	none
Total	9,549	490	79	166	45	Eq 1,G/D 2,G

Resource Management Objectives

The stand prescriptions, unit layout, and logging and transportation plans will be designed to meet the following resource objectives:

- Speed the development of late-successional forest characteristics in managed stands by thinning these heavily stocked stands to maintain stand health, promote tree growth, and enhance stand diversity.
- Manage riparian reserves consistent with the Northwest Forest Plan's Aquatic Conservation Strategy.
- Protect water quality and fish habitat in all streams.
- Minimize soil disturbance during all phases of harvest activity.
- Protect T&E wildlife species by limiting operating seasons.

Timber Characteristics

Refer to the cruise data for information about timber characteristics.

Recommended Logging Systems

A. Logging System Requirements

The following requirements are designed to meet the resource management objectives stated in section I.

- Except during lateral yarding, the skyline must be capable of keeping the leading end of logs suspended above the ground during inhaul.
- Where yarding occurs across streams, the skyline system must be capable of keeping the entire length of logs fully suspended above streams during inhaul.
- Where the skyline passes through stream buffers, skyline corridors will be spaced so that no more than 20% of the existing canopy in the buffers will be removed in a given 1,000 foot reach of stream.
- Minimum skyline corridor spacing shall be 120 feet and maximum corridor width shall not exceed twelve (12) feet.
- Ground-based yarding shall be limited to slopes of 30 percent or less and use designated skid trails. All designated skid trails must be approved by the sale administrator.

B. Acceptable Yarding Equipment

The skyline system should be capable of transporting logs for a horizontal distance of up to 1,500 feet. A rigging length of up to 2,300 feet will be necessary to reach tailholds.

The skyline system must: (1), be capable of meeting the log suspension requirements stated above; (2), be capable of lateral yarding; and (3), be capable of being rigged in a multi-span configuration (units 1, 2, 5, 6, 7, 8, 10 and 11).

The carriage must be capable of maintaining a fixed position on the skyline, while lateral yarding up to 100 feet on either side of the skyline, and it must be capable of passing support jacks where intermediate supports are used.

Ground-based equipment must be able to provide suspension of the leading end of logs during skidding (units 1, 3 and 8).

C. Logging System Specifications

Table 3 shows the specifications of the logging systems that were used in the analysis for this project. These systems are recommended because they are available, capable of meeting the resource management objectives and logging system requirements, reduce the number of intermediate supports needed, and are capable of doing the job economically.

Table 3. Recommended logging system specifications

Yarder	Madill 6150, SPCM
Tower height	50 feet
Skyline diameter/length/type	0.875 inches/2,000 feet/Swaged
Mainline diameter/length/type	0.625 inches/2,300 feet/Swaged
Haulback diameter/length/type	0.5 inches/4,300 feet/Swaged
Strawline diameter/length/type	N/A
Carriage	Eagle Eaglet; 1,200 pounds

Other equipment—Hardware for rigging tailtrees (2 sets) and intermediate supports (3 sets); crawler tractor for landing clearing; equipment for a guyline and tailhold anchors; a Yoader or Modified Loader; ground-based equipment for yarding logs on designated slopes of 30 percent or less; and a loader/shovel.

Logging Plan Narrative

This section discusses the logging and transportation plans for each unit (See Unit Summary Sheets).

A. General Information

- All unit boundaries are marked with blue-paper or aluminum tags and yellow ribbon.
- All landings are marked with aluminum tags, and solid blue and solid white ribbon.
- Minor clearing is required for some landings.
- Landings are located to minimize yarding over buffered streams and headwalls.

- All roads and landings will be reviewed on the ground by a District hydrologist and the Forest transportation planner for the timber-sale appraisal and contract.
- Log hauling will be limited to the **dry season on 5842820 and most temporary roads** because of the cost associated with the quantity of rock needed.
- There are a few streams and associated headwalls that exist within the units. These areas will be buffered and excluded form the units. Buffer boundaries will be marked on the ground to protect slope stability and water quality. Full-log suspension is required over streams and headwalls.
- Skyline landings generally use fan-shape and parallel settings, with most turnroads using single-span configurations. Tailholding on opposing slopes is emphasized, where opportunities exist, to reduce the need for tailtrees and intermediate supports.
- Where yarding will occur over streams, some areas may lack the deflection necessary to
 obtain full suspension of logs during whole-tree yarding; therefore, shorter log lengths
 will be required over these areas.
- Most of the units will require some loader/shovel logging along the roadway or on designated skid trails.

Skyline Profile Data and Payload Analyses (see Appendix A)

Profile and skyline payload analyses were conducted with SkylineXL_2. Adequate tree sizes are available for tailtrees and intermediate supports, using a rigging height of up to 40 feet (most profile analyses figured tailtrees and intermediate supports at a height of 30 feet), and a skyline diameters of 0.75 or 0.875 inches. Adequate payloads equate to three average logs or two long logs (whole-tree length, measured from the stump cut to a 5" top).

Equipment Access and Haul Route

The sale location and probable equipment access and haul routes are displayed on the vicinity map in the timber sale contract. No access or haul route problems are anticipated. The forest transportation planner has verified the following haul routes.

Log haul for unit all units is planned to south on the 5842 to the North Fork Siuslaw County road.

Appendix A

SkylineXL and Profile Data

Appendix B

Appraiser Information

Watershed— North Fork Siuslaw Watershed

Environmental Assessment- The North Fork Siuslaw Landscape Management Project EA (May 2012) covers the sale area.

Survey monuments—see unit summary sheets and logging map.

Dump sites— none

Appendix C

Logging Plan GIS

Central Coast Ranger District

General Information

Unit #:

1

Stand #:

507246

Legal Location:

__1

Sec. 7 and 8, T. 17 S., R. 11 W., W.M.

Acres:

Photo Number:

18-189 (1995)

Year of Origin:

<u>1979</u>

Unit Designation:

DxP

Residual TPA Post Harvest:

75

Recon by/Date:

Casey Hawes

Volume Information

Source of volume estimate:

Stand Exam

Estimated Volume:

9 MBF/Acre

Special	Considerations	
No		

	Yes	No		Yes No
Power Lines		X	Fences	Х
Invasive/Sensitive Plants		Х	Heritage Sites	X
Dump Sites		Х	Meadows	Х
Survey Monuments		X	Water Systems	X
Improvements		Х	Other	Х

Road and Landing Information

Londina	Bood Tymo	Road	Road		Londing	Bood Tyma	Road	Road
Landing	Landing Road Type	Length	Status		Landing	Road Type	Length	Status
Α	non-system	307 ft	Existing					
В	non-system	295 ft	Existing				10 100011-11-12-15	
С	5842		Existing					
D	non-system	730 ft	Existing					1 4
E	non-system	390 ft	Existing	以建划扩展的				
FV	5842		Existing	是多年 推開 40	T 5-2			ATT - 12 - 12 - 12 - 12 - 12 - 12 - 12 -
G	non-system	370 ft	Existing				-	
H	non-system	355 ft	Existing					-411
	5842		Existing			L-L		
								-

Notes

Temporary road to landings A and B is a native surface road with a maximum adverse haul of about 16 percent.

Temporary road to landings D and E has some aggregate and is 18 to 19 percent adverse haul. Truck assist will be needed.

Temporary road to landings G and H is native surface and is 15 to 19 percent adverse haul. Truck assist will be needed.

	Unit #						
Landing	Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees	Logging Profiles Run and Azimuth/Length
A	S	Р	No	none	none	6 TT, 30 ft	No
В	Y, GB	none	No	none	none	6 TT, 30 ft	No
C = =	Υ	none	No	none	none	2 TT, 30 ft	No
D	S	Р	No	none	none	none	Yes
E	Y, GB	none	No	none	none	1 TT, 30 ft	No
F	Υ	none	No	none	4 IS	7 TT, 30 ft	No
G	Υ	none	No	none	3 IS	4 TT, 30 ft	No
H	S	В	No	none	1 IS	1 TT, 30 ft	No
	S.	M	No	none	3 IS	3 TT, 30 ft	No
1 300/44 4							
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					is and		

	Unit Total	s and Averages	
Average Yarding Distance:	<u>350</u>	Average Net Pound per Payload:	3500
Average Mainline Tension:	3000	Average Slope:	<u>45</u>
Maximum Tagline Needed:	<u>300</u>	Total Number of Corridors:	<u>45</u>
Maximum Yarding Distance:	1450	Total Number of Landings:	9

Notes

Ground-based Harvesting= shovel or tractor log using existing skid trails when possible. Favorable and adverse skidding required, ranging from 10-20 percent slope.

Average skidding distance = 200 feet External skidding distance = 400 feet Ground-based acres = 3 acres

Central Coast Ranger District General Information Unit #: Stand #: 507254 Legal Location: Sec. 17 and 18, T. 17 S., R. 11 W., W.M. Acres: Photo Number: Year of Origin: 707-239 <u> 1977</u> Unit Designation: Residual TPA Post Harvest: <u>DxP</u> <u>60</u> Recon by/Date: **Casey Hawes** Volume Information Estimated Volume: Source of volume estimate: Stand Exam 13.6 MBF/acre **Special Considerations** Yes No Yes No Power Lines **Fences** Х Invasive/Sensitive Plants **Heritage Sites** Х Х **Dump Sites** Meadows X X Survey Monuments Water Systems Х Χ **Improvements** Other X Χ **Road and Landing Information** Road Road Road Road Landing Road Type Landing Road Type Length Status Length Status 5842 Existing 5842 Existing 5842 Existing C-1 5842 **Existing** D 5842 Existing 295 ft non-system Existing 5842 Existing 5842 **Existing**

Notes

Other- Some of the plantation trees have study tags.

Temporary road to landing E is 10 to 15 percent adverse haul.

Logging Systems Information								2
Landing	Logging System Type	Guyline	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		Profiles Run nuth/Length
Α	Υ	none	No	none	none	5 TT, 30 ft	No	
В	S	Р	No	none	none	2 TT, 30 ft	No	ui u
С	Υ	none	No	none	none	2 TT, 30 ft	No	
C-1	Υ	none	No	none	none	3 TT, 30 ft	No	i i e e in
D .	S	В	No	2 D	none	3 TT, 30 ft	No	1 = 1
E	S	P	No	none	10 IS	5 TT, 30 ft	Yes	multiple
F	Υ	none	No	none	none	2 TT, 30 ft	No	
G	Y	none	No	none	none	3 TT, 30 ft	No	
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	Unit Totals	s and Averages	
Average Yarding Distance:	<u>600</u>	Average Net Pound per Payload:	<u>4500</u>
Average Mainline Tension:	<u>3500</u>	Average Slope:	<u>40</u>
Maximum Tagline Needed:	<u>none</u>	Total Number of Corridors:	<u>54</u>
Maximum Yarding Distance:	<u>1300</u>	Total Number of Landings:	8
(8)			

Notes

Note- Haulback Required. Extra Wide lateral yarding required up to 100 feet.

Central Coast Ranger District

			OCITATION V	oodot i te	inger blottio	•		
				neral Info				
	Jnit # :		<u>3</u>			nd # :	<u>507</u>	<u> 260</u>
Legal Loc	ation:		Sec. 20	<u>, T. 17 S.,</u>	R. 11 W., W.M.		Acres:	
Photo Nu	mber:	70	7-241	Year of C	Origin:		<u>19</u>	77
Unit Design	gnation:		DxP	Residual	TPA Post Harv	est:	6	<u> 5</u>
Recon by	/Date:				Casey Hawe	es		
			Vol	lume Info	rmation			
Source of	volume estima	ite.		d Exam	Estimated V	olume:	8 5 ME	BF/acre
Cource of	voidine estima			sin-transportations.		olumo.	O.O IVIL	ii /acic
			•	ial Consi	derations			
		Yes	No				Yes	No
Power Lir			X		Fences			Х
ł.	Sensitive Plants		X		Heritage Site	es		Х
Dump Sites		Х		Meadows			Х	
Survey Monuments		х		Water Systems			Х	
Improvem	ents		х		Other			Х
			Road an	d Landin	g Information			
Landing	Road Type	Road	Road		Landing		Road	Road
1999	noau Type	Length	Status		Landing	Road Type	Length	Status
A B C D	non-system	230 ft	Existing					
В	non-system	322 ft	Existing					
С	non-system	63 ft	Existing					
D	5842	V-1	Existing					
E	5842		Existing					
F	5842		Existing		0	= ,,		
		707 = -0.815 H= 0.00 to 0.115				n =	. Ey 1	
					No.			

Notes

Temporary road to landing A is 18-19% adverse haul. Because of the short distance to the 5842 road I don't think an assist vehicle is necessary.

Temporary road to landings B and C is 18-19% adverse haul. This is a little bit longer road appraise for truck assist.

	Logging Systems Information							
Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees	Logging Pr and Azimu		
, GB	В	No	none	none	6TT, 30 ft	No		
ā	Р	No	none	none	4 TT, 30 ft	No		
, GB	Р	No	none	none	3 TT, 20 ft	No	EXTRA 1	
	В	No	none	none	5 TT, 30 ft	No		
	Р	No	none	none	3 TT, 30 ft	No	- H	
2-112	Р	No	none	none	3 TT, 30 ft	No		
	81 %	1 3 1					11 (481)	
		THE RESERVE OF THE PERSON OF T				<u> </u>		
	, GB	, GB B P B B P	GB B No P No GB P No B No P No	GB B No none	GB B No none none P No none none GB P No none none B No none none P No none none P No none none none	GB B No none none 6TT, 30 ft	GB B No none none 6TT, 30 ft No	

	Unit Totals	s and Averages	
Average Yarding Distance:	<u>275</u>	Average Net Pound per Payload:	3500
Average Mainline Tension:	3000	Average Slope:	<u>45</u>
Maximum Tagline Needed:	none	Total Number of Corridors:	30
Maximum Yarding Distance:	<u>950</u>	Total Number of Landings:	<u>6</u>

Notes

Ground-based Harvesting= shovel or tractor log using existing skid trails when possible. Favorable and adverse skidding required, ranging from 10-20 percent slope.

Average skidding distance = 150 feet External skidding distance = 300 feet Ground-based acres = 1.5 acres

Central Coast Ranger District

General Information

Unit #:

4

Stand #:

507261

Legal Location:

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Sec. 20 and 29, T. 17 S., R. 11 W., W.M.

Acres:

Photo Number:

19-18 (1995)

Year of Origin:

<u>1981</u>

Unit Designation:

DxP

Residual TPA Post Harvest:

11.5

Recon by/Date:

Casey Hawes

Volume Information

Source of volume estimate:

Stand Exam

Estimated Volume:

11.5 MBF/acre

Special	Considerations

	Yes	No		Yes	No
Power Lines		Х	Fences		X
Invasive/Sensitive Plants		Х	Heritage Sites		X
Dump Sites		X	Meadows		X
Survey Monuments		X	Water Systems		Х
Improvements		X	Other		X

Road and Landing Information

Landing	Road Type	Road Length	Road Status	Landing	Road Type	Road Length	Road Status
A	5842		Existing	H		Longin	Otalus
В	5842		Existing				
С	5842		Existing				
D	5842	4.	Existing				
Ε	non-system	150 ft	New				
F	5842		Existing			21.5	
G	non-system	195 ft	New	I-I I-IV			
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1 =			8				
	ei ei	15					

Notes

Southeast part of the stand was not pre-commercially thinned (PCT). This area is also heavy to Sitka spruce. Defer area where PCT was not completed.

The planned temporary road on the south end of the harvest unit was not suitable for haul. This road has favorable slopes approaching 30 percent. A new temporary road totaling 195 feet was designed to access landing G.

		Logging	Systems	Informatio	n		Unit #	4
Landing	Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		Profiles Run outh/Length
Α	Υ	N/A	No	none	none	3 TT, 30 ft	No	
В	Υ	N/A	No	none	none	3 TT, 30 ft	No	
С	Υ	N/A	No	none	none	4 TT, 30 ft	No	
D	Υ	N/A	No	none	none	2 TT, 30 ft	No	
Ε	Υ	N/A	No	none	none	2 TT, 30 ft	No	
F	Υ	N/A	No	none	none	1 TT, 30 ft	No	
G	Υ	N/A	No	none	none	3 TT, 30 ft	No	======
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	-21111							

79.	Unit Totals	s and Averages	
Average Yarding Distance:	<u>250</u>	Average Net Pound per Payload:	3000
Average Mainline Tension:	<u>2500</u>	Average Slope:	<u>40</u>
Maximum Tagline Needed:	<u>none</u>	Total Number of Corridors:	<u> 27</u>
Maximum Yarding Distance:	<u>600</u>	Total Number of Landings:	<u>7</u>

			Central (Coast Rar	nger Distric	t		
				neral infor		The state of the s		
ر Legal Loc	Jnit # : ation:		<u>5</u>			nd # :	507 Acres:	<u> 262</u>
Photo Nu Unit Design Recon by	gnation:		2 (1995) DxP	Year of Or Residual T	igin: PA Post Harv <u>Casey Hawe</u>			<u>69</u> 5
				lume Infor				
Source of	volume estima	ite:	Stan	<u>d Exam</u>	Estimated V	olume:	<u>15MB</u>	F/acre
			Spec	ial Consid	erations			
		Yes	No				Yes	No
Power Lir			Х	- L	Fences			Х
	Sensitive Plants		X		Heritage Site	es		х
Dump Site			X	Meadows				х
	onuments		X		Water Syste	ms		X
Improvem	ents		x	1	Other			Х
			Road an	d Landing	Information			
Landing	Road Type	Road Length	Road Status		Landing	Road Type	Road Length	Road Status
A	non-system	125 ft	Existing					
B C D	non-system	85 ft	Existing					
С	5842		Existing		AS-			
D	5842		Existing					1967
E	5842	2 1	Existing				<u></u>	
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Notes

Note- Private property line on north edge of the unit. Protect carsonite posts.

		Logging	Systems	Informatio	n		Unit #	5
Landing	Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		rofiles Run uth/Length
Α	Υ	none	No	none	none	2 TT, 30 ft	No	
В	S	В	No	none	2 IS	4 TT, 30 ft	No	
С	S	Р	No	1Eq, G	1 IS	1 TT, 30 ft	No	- 1
D	S	none	No	none	none	3 TT, 30 ft	No	
Ε	S	М	No .	none	2 IS	2 TT, 40 ft	No	
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	Unit Tota	ls and Averages	
Average Yarding Distance:	<u>325</u>	Average Net Pound per Payload:	<u>3500</u>
Average Mainline Tension:	3000	Average Slope:	45
Maximum Tagline Needed:	none	Total Number of Corridors:	<u>16</u>
Maximum Yarding Distance:	<u>750</u>	Total Number of Landings:	<u>5</u>

Central Coast Ranger District General Information Unit #: Stand #: 607235 Legal Location: Sec. 6, T. 18S., R. 11W., and Sec. 31, T. 17S., R. 11W., W.M. Acres: Photo Number: 707-245 Year of Origin: <u>1974</u> **Unit Designation:** Residual TPA Post Harvest: <u>DxP</u> <u>50</u> Recon by/Date: **Casey Hawes Volume Information** Source of volume estimate: Stand Exam **Estimated Volume:** 12MBF/acre **Special Considerations** Yes Yes No No **Power Lines** Fences Invasive/Sensitive Plants Heritage Sites Χ Х **Dump Sites** Meadows Х Х **Survey Monuments** Water Systems Х Х Improvements Other Х Χ **Road and Landing Information** Road Road Road Road Landing Road Type Landing Road Type **Status** Length Length Status non-system 215 ft **Existing** В 5842820 Existing 5842820 **Existing** D 5842820 **Existing** non-system 75 ft Existing non-system 520 ft **Existing** G 5842820 **Existing** 5842820 **Existing**

Notes

Temporary road to landing E and F is 10-15% adverse haul.

		Logging	Systems	Informatio	n		Unit #	ϵ
Landing	Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		rofiles Run uth/Length
Α	S	В	No	none	2 IS	none	No	1
В	Υ	none	No	none	none	2 TT, 30 ft	No	
С	S =	Р	No	none	none	1 TT, 30 ft	No	
D	S	M	No	none	none	2 TT, 20 ft	No	1 18
E	S	Ρ	No	none	2 IS	2 TT, 30 ft	No	
F	S	Р	No	none	none	none	No	A NO LIN
G	S	В	No	none	none	1 TT, 30 ft	No	
1	Υ	none	No	none	none	2 TT, 30 ft	No	
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	Unit Total	als and Averages	
Average Yarding Distance:	300	Average Net Pound per Payload:	3000
Average Mainline Tension:	3000	Average Slope:	50
Maximum Tagline Needed:	none	Total Number of Corridors:	<u>23</u>
Maximum Yarding Distance:	<u>750</u>	Total Number of Landings:	8

Central Coast Ranger District

General Information

Unit #:

Stand #:

607232

Legal Location:

Sec. 31 and 32, T. 17 S., R. 11 W., W.M.

Acres:

Photo Number:

1507-65

Year of Origin:

<u>1969</u>

Unit Designation:

DxP

Residual TPA Post Harvest:

<u>50</u>

Recon by/Date:

Volume Information

Source of volume estimate:

Stand Exam

Estimated Volume:

Casey Hawes

13 MBF/acre

Special Considerations

	Yes	No	
Power Lines		X	
Invasive/Sensitive Plants	Х	-v-nice	
Dump Sites		X	
Survey Monuments	Lean et	Х	
Improvements		X	

Yes No **Fences** Heritage Sites X Meadows Х Water Systems Х Other Χ

Road and Landing Information

Londina	Road Type	Road	Road	West No.	Londing	Road Type	Road	Road
Landing	Road Type	Length	Status		Landing	1 Toau Type	Length	Status
Α	5842784	100	Existing		K	non-system	174 ft	Existing
В	non-system	275 ft	Existing		L	non-system	178 ft	Existing
С	non-system	352 ft	Existing		M	non-system	115 ft	Existing
D	non-system	220 ft	Existing	Control provider	N	non-system	865 ft	Existing
E	non-system	765 ft	Existing		0	non-system	362 ft	Existing
F ==== = ==	non-system	120 ft	Existing	an The State of th				
G	non-system	145 ft	New		111. 11 12.		, , , , , , , , , , , , , , , , , , ,	i
Н	non-system	same as I	Existing	副門是劉德國		-		
19	non-system	385 ft	Existing					-
J	non-system	824 ft	Existing					

Notes

Note Special Considerations-There is English Holly and an abandoned weather station present in this harvest unit.

There are five temporary roads in this unit.

The total length of the temporary road to landings C, D, and E is 1337 feet. See above for distance between landings. This road is native surface with a 10-15 percent adverse grade.

The total length of the temporary road to landings H, I, J, K, L, M, N, and O is 2903 feet. See above for distance between landings. This road is native surface with a 10-15 percent adverse grade.

	Logging	Systems	<u>Informatio</u>	n		Unit #	7
Logging System Type	Guyline Anchor Trees	Anchor Guy	Special Anchors	Intermediate Supports	Tailtrees	Logging Profiles Run and Azimuth/Length	
S	Р	No	none	2 IS	3 TT, 30 ft	Yes	Az79, 497
S	Р	No	none	none	none	No	413
S	Р	No	none	none	none	No	m 8
S	Р	No	none	5 IS	1 TT, 20 ft	No	
S	Р	No	none	none	none	No	- Term
S	Р	No	none	none	none	No	
S	Р	No	none	none	none	No	
S	Р	No	none	none	1 TT, 30 ft	No	
S	Р	No	none	none	none	No	
S	Р	No	none	none	2 TT, 30 ft	No	
S	Р	No	none	none	none	No	
S	Р	No	none	none	none	No	
S	Р	No	none	none	none	No	
S	P ^	No	none	none	1 TT, 30 ft	No	4 (12) (11
S	P	No	none	none	2 TT, 30 ft	No	1 1/11 - 111 =
		-					
	System Type S S S S S S S S S S S S S S S S S S S	Logging System Type Guyline Anchor Trees P S P S P S P S P S P S P S P S P S P	Logging System Type Guyline Anchor Trees P No S P	Logging System Type Guyline Anchor Trees P No none S P No none	Logging System TypeGuyline Anchor TreesMultiple Guy AnchorsSpecial AnchorsIntermediate SupportsSPNonone2 ISSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenoneSPNononenone	Logging System TypeGuyline Anchor TreesMultiple Guy AnchorsSpecial AnchorsIntermediate SupportsTailtreesSPNonone2 IS3 TT, 30 ftSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenone1 TT, 30 ftSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenoneSPNononenonenone	Logging System TypeGuyline Anchor TreesMultiple Guy AnchorsSpecial AnchorsIntermediate SupportsTailtreesLogging and AzinSPNonone2 IS3 TT, 30 ftYesSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenone1 TT, 30 ftNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNoSPNononenonenoneNo

Unit Total	s and Averages	
<u>370</u>	Average Net Pound per Payload:	4000
<u>2500</u>	Average Slope:	<u>50</u>
none	Total Number of Corridors:	88
1000	Total Number of Landings:	15
	370 2500 none	2500 Average Slope: none Total Number of Corridors:

Central Coast Ranger District

General Information

Unit #:

8

Stand #:

607233

Legal Location:

8

Sec. 32 and 33, T. 17 S., R. 11 W., W.M.

Acres:

Photo Number:

1507-65

Year of Origin:

1988

Unit Designation:

DxP

Residual TPA Post Harvest:

75

Recon by/Date:

Casey Hawes

Volume Information

Source of volume estimate:

Stand Exam

Estimated Volume:

9.5 MBF/acre

Special	Considerations
---------	----------------

	Yes	No		Yes	- No
Power Lines		Х	Fences	L.	Х
Invasive/Sensitive Plants		Х	Heritage Sites		Х
Dump Sites		х	Meadows	31	Х
Survey Monuments		Х	Water Systems		х
Improvements		х	Other		Х

Road and Landing Information

				<u></u>		4		
Landing	Road Type	Road Length	Road Status		Landing	Road Type	Road Length	Road Status
Α	5842777		Existing	模型质量器器的				
В	5842777	<1 T	Existing		11 = 1 = 1			
C	5842777		Existing				2.	
D	5842777		Existing				<i>1</i> 0	III.
E	5842777		Existing				95	
F	5842777		Existing			= =		
G	5842777		Existing					
			district the state of					
	1 1							

Notes

Note- see engineering notes for the length and condition of Forest Service system road(s).

Patches of holes with low stocking dispersed throughout the unit.

Logging Systems Information							
Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		rofiles Run uth/Length
1	none	No	none	none	1 TT, 30 ft	No	
3	M	No	none	2 IS	4 TT, 30 ft	Yes	T
S, GB	В	No	none	none	6 TT, 30 ft	Yes	
3	В	No	none	none	none	No	m = e
3	В	No	none	none	none	No	'E'm 'H
3	В	No	none	none	none	No	
	none	No	none	none	2 TT, 20 ft	No	
				11 = = = = = = = = = = = = = = = =			
- H							
	*				D 19		
				3 38 38 1			
		1111111				r	oni, mil
	ystem Type , GB	Anchor Trees none M GB B B B	Anchor Trees Anchors Inone No M	Anchors Trees Anchors Guy Anchors No No No GB B No No B No No No B No No B No No No No B No No No B No No No B No No No	Anchors Trees Anchors Anchors Supports No No None None	Anchor Trees Anchors Guy Anchors Supports Tailtrees No	System Type Anchor Trees Anchors Guy Anchors Anchors Supports Tailtrees And Azimu Anchors Supports Tailtrees Anchors Anchors Supports Tailtrees Anchors Anchors Supports Tailtrees Anchors Anchors Supports Tailtrees Anchors A

	Unit Total	s and Averages	
Average Yarding Distance:	<u>465</u>	Average Net Pound per Payload:	3500
Average Mainline Tension:	3000	Average Slope:	<u>45</u>
Maximum Tagline Needed:	none	Total Number of Corridors:	37
Maximum Yarding Distance:	950	Total Number of Landings:	7

Notes

Area behind landing C and D can be shovel logged to system road. There is access to ridge south/southeast of landing C to facilitate shovel yarding.

Guyline anchor behind landings E and F for the yarder are sparse. There about 4-6 trees spread behind these two landings. This should provide adequate guyline anchors for the limited number of corridors.

Note to Presale Crew-

Area yarded by Landing B. The unit boundary will need to be cut off at terrain point (TP) #15 (STA 7+04) along the profile run at Azimuth 250 degrees. Boundary can be placed about 50 feet below this terrain point. Area yarded by Landing C. The boundary will need to be cut off at TP #17 (STA 7+04) along the profile run at Azimuth 242 degrees. There is a stream located at TP# 18. The timbered area below this stream shouldn't be included in the unit.

			Central C	oast Ra	anger Distric	t		
			Ger	eral Info	rmation			
U	nit#:		9		Sta	nd # :	<u>607</u>	<u> 236</u>
Legal Loca	ation:	Sec. 6, T.	18S., R. 11\	V.,and Se	c. 31, T. 17S., F	R. 11W., W.M.	Acres:	
Photo Nur		70	7-245	Year of C			<u>19</u>	<u>72</u>
Unit Desig		<u>_</u>	<u>DxP</u>	Residual	TPA Post Harv	est:	<u>5</u>	<u>5</u>
Recon by/	Date:				Casey Hawe	<u>es</u>		
			Vol	ume Info	rmation			
Source of	volume estimat	e:		Exam		olume:	13.5 MI	BF/acre
			Speci	ial Consi	iderations			
		Yes	No				Yes	No
Power Line	Power Lines		Х		Fences			Х
Invasive/S	ensitive Plants		X	(6)	Heritage Sites Meadows Water Systems			. X
Dump Site	es [х					Х
Survey Mo	numents [X					= X
Improvem	ents		х		Other		Х	
_ = ==			Road and	Landin	g Information			
Landing	Bood Type	Road	Road				Road	Road
Landing	Road Type	Length	Status		Landing	Road Type	Length	Status
Α	5842		Existing					
В	5842		Existing					
С	5842		Existing					
D	5842		Existing					
		7 J V						
						-		
	47							
				24294				L
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	Logging Systems Information								
Landing	Logging System Type	Guyline	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		ng Profiles Run zimuth/Length	
Α	S	М	No	none	none	2 TT, 30 ft	No		
В	S	В	No	none	none	1 TT, 30 ft	No		
С	S	M	No	none	none	1 TT, 30 ft	No		
D	S	M	No	none	none	3 TT, 30 ft	No		
	11-	- JR		luu niisi		1	1000	111	
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	Unit Total	Is and Averages	
Average Yarding Distance:	<u>270</u>	Average Net Pound per Payload:	3000
Average Mainline Tension:	<u>2500</u>	Average Slope:	<u>40</u>
Maximum Tagline Needed:	none	Total Number of Corridors:	<u>16</u>
Maximum Yarding Distance:	<u>580</u>	Total Number of Landings:	4

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		ľ	viorris i n	in Unit S	ummary Sne	eet		
			Central	Coast Ra	nger Distric	t		
			Ge	neral Info	rmation	12'		
L L	Jnit # :		<u>10</u>		Sta	nd # :	607	237
Legal Loc	ation:		Sec. 6	, T. 18 S., F	R. 11 W., W.M.		Acres:	
Photo Nu		<u>18-18</u>	<u>0 (1995)</u>	Year of C			<u>1970</u>	
Unit Desig			<u>DxP</u>	Residual	TPA Post Harv		<u>5</u>	<u>55</u>
Recon by	/Date:				Casey Hawe	<u>es</u>		
			Vo	lume Info	rmation			
Source of	volume estima	ate:		nd Exam	Estimated V	olume:	11.5 M	BF/acre
				······································				
		Yes	No	ciai Consi	derations		Yes	No
Power Lines			Х	Fences				х
Invasive/S	Sensitive Plants	5	Х	Heritage Sites Meadows Water Systems				X
Dump Site	es		Х					X
Survey M	onuments		Х					Х
Improvem	nents		Х	Other				Х
÷ .			Road an	d Landing	g Information			
Landing	Road Type	Road	Road		Landing	Road Type	Road	Road
_		Length	Status		Landing	noau rype	Length	Status
A B C	5842821		Existing					
В	non-system	212 ft	Existing					
C	non-system	245 ft	Existing					
	ļ							
	\							
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				AMARIE SAN				
				A.L.				
				Notes	5			

Logging Systems Information						Unit #	10	
Landing	Logging System Type	Guyline	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees	Logging Profiles Run and Azimuth/Length	
Α -	Υ	none	No	none	none	2 TT, 15 ft	No	
В	S	P	No	none	none	3 TT, 25 ft	No	
С	S	Р	No	none	3 IS	2 TT, 30 ft	No	
<u> </u>								
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	Karana I						r Kelm I	V PO FILE
				351				

	Unit Totals	s and Averages	
Average Yarding Distance:	<u>260</u>	Average Net Pound per Payload:	3000
Average Mainline Tension:	<u>2500</u>	Average Slope:	<u>55</u>
Maximum Tagline Needed:	none	Total Number of Corridors:	12
Maximum Yarding Distance:	<u>590</u>	Total Number of Landings:	3

Unit #: 11 Legal Location: Sec. 6, T. 18 S., R. 11 W., Photo Number: 707-246 Year of Origin: Unit Designation: DxP Residual TPA Pos Recon by/Date: Casey Volume Information	Stand # : 6072 , W.M. Acres: 196 st Harvest: 50 y Hawes	<u>69</u>	
Legal Location: Photo Number: Unit Designation: Recon by/Date: Sec. 6, T. 18 S., R. 11 W., 707-246 Year of Origin: DxP Residual TPA Pos Casey	. W.M. Acres: 196 st Harvest: 50 y Hawes	<u>69</u>	
Photo Number: 707-246 Year of Origin: Unit Designation: DxP Residual TPA Pos Recon by/Date: Casey	st Harvest: <u>50</u> y Hawes		
Unit Designation: DxP Residual TPA Pos Recon by/Date: Casey	st Harvest: <u>50</u> <u>y Hawes</u>		
Recon by/Date: <u>Casey</u>	y Hawes	<u></u>	
Volume Information	,		
	•		
Source of volume estimate: <u>Stand Exam</u> Estima	ated Volume: <u>11 MBF</u>	11 MBF/acre	
Special Consideration	ns		
Yes No	Yes	No	
Power Lines x Fence	es	Х	
Invasive/Sensitive Plants x Herita	age Sites	Х	
Dump Sites X Meado	ows	Х	
Survey Monuments x Water	r Systems	Х	
Improvements x Other		Х	
Road and Landing Inform	nation		
Pood Pood	Road	Road	
Landing Road Type Length Status Lan	nding Road Type Length	Status	
A non-system 80 ft Existing			
B 5842822 Existing			
C 5842822 Existing			
D 5842 Existing			
E 5842822 Existing F 5842 Existing			
		ЕП	
G 5842 Existing			
The state of the s			
		L-	
Notes			

Logging Systems Information						Unit #	11	
Landing	Logging System Type	Guyline Anchor Trees	Multiple Guy Anchors	Special Anchors	Intermediate Supports	Tailtrees		rofiles Run uth/Length
Α	S	В	No	none	1 IS	2 TT, 30 ft	Yes	A147,570
В	S	Р	No	none	none	1 TT, 30 ft	No	1 ()
С	S	Р	No	none	none	3 TT, 30 ft	No	
D	S	Р	No	none	none	1 TT, 40 ft	No	in in it
E	S	P	No	none	none	2 TT, 30 ft	No	
F	S	В	No	none	none	none	No	TON LESS
G	S	Р	No	none	2 IS	1 TT 40 ft	No	
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	Unit Totals	and Averages	
Average Yarding Distance:	<u>330</u>	Average Net Pound per Payload:	<u>4000</u>
Average Mainline Tension:	3000	Average Slope:	40
Maximum Tagline Needed:	none	Total Number of Corridors:	31
Maximum Yarding Distance:	<u>750</u>	Total Number of Landings:	7